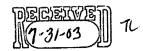
Official

Reply Dated July 31, 2003 Serial No. 09/740,052



IN THE CLAIMS

Claim 1. (Amended) A method for a <u>Virtual Private Network (VPN)</u> server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; and

metering by the VPN server packets belonging to the application group;

wherein the server is a Virtual Private Network (VPN) server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 2. (Canceled).

Claim 3. (Amended) A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; and

metering by the VPN server packets belonging to the application group;

wherein the <u>VPN</u> server is directly connected to other links having larger bandwidth than the available bandwidth of the remote link; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 4. (Original) The method of claim 1 wherein the packets belonging to the application group share a pre-defined configuration.



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Claim 5. (Amended) A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; and

metering by the VPN server packets belonging to the application group;

wherein the packets belonging to the application group contend equally for the portion of the bandwidth; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 6. (Original) The method of claim 1 wherein metering the packets group further includes metering flow rate of the packets going through the server in either direction.

Claim 7. (Original) The method of claim 6 wherein metering the packets further includes rejecting the packets if the flow rate exceeds the portion of the assigned bandwidth.

Claim 8. (Amended) A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; metering by the VPN server packets belonging to the application group; and allowing a user to specify the bandwidth of the remote link from a user interface;

wherein the VPN server is configured to at least one of authenticate, encapsulate, and deencapsulate at least a portion of the packets. Reply Dated July 31, 2003 Serial No. 09/740,052

Claim 9. (Amended) A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; metering by the VPN server packets belonging to the application group; and allowing a user to specify the portion of the assigned bandwidth from a user interface; wherein the VPN server is configured to at least one of authenticate, encapsulate, and deencapsulate at least a portion of the packets.

Claim 10. (Amended) A system for managing bandwidth of a remote link comprising:

- a Virtual Private Network (VPN) server;
- a contention pool having a portion of the bandwidth for at least one application group; and
- a meter <u>associated with the VPN server</u> for metering the packets belonging to the application group;

wherein the server is a Virtual Private Network (VPN) server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 11. (Canceled).

Claim 12. (Amended) A system for managing bandwidth of a remote link comprising:

a Virtual Private Network (VPN) server;

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a contention pool having a portion of the bandwidth for at least one application group; and

a meter associated with the VPN server for metering packets belonging to the application group by the VPN server:

wherein the VPN server is directly connected to other links having larger bandwidth than the available bandwidth of the remote link; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 13. (Original) The system of claim 10 wherein the packets belonging to the application group share a pre-defined configuration.

Claim 14. (Amended) A system for managing bandwidth of a remote link comprising:

- a Virtual Private Network (VPN) scrvcr;
- a contention pool having a portion of the bandwidth for at least one application group; and
- a meter associated with the VPN server for metering packets belonging to the application group by the VPN server;

wherein the packets belonging to the application group contend equally for the contention pool; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 15. (Original) The system of claim 10 wherein the meter further meters flow rate of the packets going through the server in either direction.

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Claim 16. (Original) The system of claim 15 wherein the meter further rejects the packets if the flow rate exceeds the assigned portion of the bandwidth.

Claim 17. (Amended) A system for managing bandwidth of a remote link comprising:

- a Virtual Private Network (VPN) server;
- a contention pool having a portion of the bandwidth for at least one application group; and
- a meter associated with the VPN server for metering packets belonging to the application group by the VPN server; and

a user interface that allows a user to specify the bandwidth of the link;

wherein the VPN server is configured to at least one of authenticate, encapsulate, and deencapsulate at least a portion of the packets.

- Claim 18. (Amended) A system for managing bandwidth of a remote link comprising:
 - a Virtual Private Network (VPN) server;
- a contention pool having a portion of the bandwidth for at least one application group; and
- a meter associated with the VPN server for metering packets belonging to the application group by the VPN server; and
- a user interface that allows a user to specify the assigned portion of the bandwidth; wherein the VPN server is configured to at least one of authenticate, encapsulate, and deencapsulate at least a portion of the packets.

